

In the claims:

1. (Currently amended) A method for preventing induction of an asthmatic state in a human patient comprising administering to said human patient an agent which selectively inhibits binding of IgE to a FcεRII receptor protein present on airway smooth muscle cells, said agent being suspended in a pharmaceutically acceptable carrier in an amount sufficient to inhibit said binding ~~of said IgE to said FcεRII receptor protein~~ thereby preventing the induction of said asthmatic state in said human patient.

2. (Original) The method of claim 1, wherein said agent is selected from the group consisting of an isolated protein, an isolated polypeptide, a synthetic peptide, and a non-peptide.

3. (Original) The method of claim 1, wherein said agent is an antibody or a functional fragment thereof.

4. (Original) The method of claim 3, wherein said antibody is selected from the group consisting of a polyclonal antibody, a monoclonal antibody, a synthetic antibody, a chimeric antibody, and a humanized antibody.

5. (Original) The method of claim 3, wherein said functional fragment is selected from the group consisting of Fv, Fab, and scFV.

6. (Original) The method of claim 3, wherein said antibody is an anti-FcεRII receptor protein antibody.

7. (Original) The method of claim 1, wherein said agent is administered via parenteral administration.

8. (Original) The method of claim 7, wherein said parenteral administration is selected from the group consisting of

intravenous injection and intramuscular injection.

9. (Original) The method of claim 1, wherein said agent is administered in a formulation selected from the group consisting of parental, oral solid, oral liquid, ophthalmic, suppository, aerosol, and topical formulations.

10. (Original) The method of claim 9, wherein said agent is administered in topical formulation.

11. (Original) The method of claim 1, wherein said agent is administered in conjunction with at least one agent selected from the group consisting of corticosteroid, sodium cromolyn, methylxanthine, leukotriene modifiers, anti-cholinergic agents, and beta adrenergic agents.

12. (Original) The method of claim 1, wherein said agent is administered to the human in an amount between about 1 ng/kg and about 100 mg/kg of patient body weight.

13. (Original) The method of claim 1, wherein said pharmaceutically acceptable carrier is physiological saline.

14. (Currently amended) A method for causing symptoms of asthma to diminish in a human patient comprising administering to said human patient an agent which selectively inhibits binding of IgE to a FcεRII receptor protein present on airway smooth muscle cells, said agent being suspended in a pharmaceutically acceptable carrier in an amount sufficient to inhibit said binding ~~of said IgE to said FcεRII receptor protein~~ thereby causing the symptoms of asthma to diminish in said human patient.

15. (Original) The method of claim 14, wherein said agent is selected from the group consisting of an isolated protein, an

isolated polypeptide, a synthetic peptide, and a non-peptide.

16. (Original) The method of claim 14, wherein said agent is an antibody or a functional fragment thereof.

17. (Original) The method of claim 16, wherein said antibody is selected from the group consisting of a polyclonal antibody, a monoclonal antibody, a synthetic antibody, a chimeric antibody, and a humanized antibody.

18. (Original) The method of claim 16, wherein said functional fragment is selected from the group consisting of Fv, Fab, and scFV.

19. (Original) The method of claim 16, wherein said antibody is an anti-FcεRII receptor protein antibody.

20. (Original) The method of claim 14, wherein said agent is administered via parenteral administration.

21. (Original) The method of claim 20, wherein said parenteral administration is selected from the group consisting of intravenous injection and intramuscular injection.

22. (Original) The method of claim 14, wherein said agent is administered in a formulation selected from the group consisting of parental, oral solid, oral liquid, ophthalmic, suppository, aerosol, and topical formulations.

23. (Original) The method of claim 22, wherein said agent is administered in topical formulation.

24. (Original) The method of claim 14, wherein said agent is administered in conjunction with at least one agent selected

from the group consisting of corticosteroid, sodium cromolyn, methylxanthine, leukotriene modifiers, anti-cholinergic agents, and beta adrenergic agents.

25. (Original) The method of claim 14, wherein said agent is administered to the human in an amount between about 1 ng/kg and about 100 mg/kg of patient body weight.

26. (Original) The method of claim 14, wherein said pharmaceutically acceptable carrier is physiological saline.

27. (Original) A method for identifying an agent which inhibits binding of IgE to an FcεRII receptor protein comprising:

- a) providing a mixture comprising said IgE and a population of cells which express said FcεRII receptor protein;
- b) incubating said mixture in the presence or absence of a test agent; and
- c) measuring the level of said IgE bound to said cells, wherein a lower level of said IgE bound to said cells in the presence of said test agent compared with the level of said IgE bound to said cells in the absence of said test agent is an indication that said test agent is capable of inhibiting the binding of said IgE to said FcεRII receptor protein.

28. (Original) The method of claim 27, wherein said cells are airway smooth muscle cells.

29. (Original) An agent useful for inhibiting binding of IgE to an FcεRII receptor protein identified using the method of claim 27.

30. (Currently amended) A method of selectively inhibiting binding of IgE to an FcεRII receptor protein expressed on an airway smooth muscle cell comprising administering to said

cell an agent which inhibits said binding of said IgE to said FcεRII receptor protein.

31. (Original) A method of regulating production of interleukin 1β in a cell, said method comprising contacting said cell with an agent which inhibits binding of IgE to a FcεRII receptor protein in an amount sufficient to inhibit said binding of said IgE to said FcεRII receptor protein thereby regulating the production of interleukin-1β in said cell.

32. (Original) The method of claim 31, wherein said agent is delivered to airway smooth muscle cells of said human patient.

33. (Original) The method of claim 32, wherein said agent is administered in aerosol form.

34. (Original) The method of claim 32, wherein said agent is administered by inhalation.

35. (Original) The method of claim 32, wherein said agent is administered via a nebulizer.

36. (Original) The method of claim 32, wherein said agent is delivered to the lower trachea.

37. (Original) The method of claim 32, wherein said agent is delivered to the nasal tract or the upper respiratory tract.

38. (Original) The method of claim 15, wherein said agent is delivered to airway smooth muscle cells of said human patient.

39. (Original) The method of claim 38, wherein said agent is administered in aerosol form.

40. (Original) The method of claim 38, wherein said agent is administered by inhalation.

41. (Original) The method of claim 38, wherein said agent is administered via a nebulizer.

42. (Original) The method of claim 38, wherein said agent is delivered to the lower trachea.

43. (Original) The method of claim 38, wherein said agent is delivered to the nasal tract or the upper respiratory tract.